

Atty. Dkt. No. 02CR146/KE (047141-0294)

**REMARKS**

Applicants respectfully request reconsideration of the present Application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-3, and 7-22 have been rejected by the Examiner. Claims 1, 8, 10-15, and 18-22 have been amended. Accordingly, Claims 1-3 and 7-22 are pending in the present Application upon entry of this Reply and Amendment.

A detailed listing of all claims that are, or were, in the Application, irrespective of whether the claim(s) remain under examination in the Application, is presented, with an appropriate defined status identifier.

For simplicity and clarity purposes in responding to the Office Action, Applicants' remarks are primarily focused on the rejections of the independent claims (i.e., Claims 1, 8, and 16) outlined in the Office Action, with the understanding that the dependent claims that depend from the independent claims are patentable for at least the same reasons (and other reasons) that the independent claims are patentable. Applicants expressly reserve the right to argue the patentability of the dependent claims separately in any future proceedings.

**35 U.S.C. § 103 Rejections**

On pages 4-9 of the Final Office Action, Claims 1-3 and 7-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Appl. No. 2003/0198206 to Cain et. al. ("Cain"); in view of U.S. Patent Appl. No. 2004/0203820 to Billhartz ("Billhartz"); and further in view of U.S. Patent Appl. No. 2002/0049039 to Natarajan ("Natarajan"). Applicants respectfully traverse the rejections and respectfully submit that the rejections should be withdrawn, because the cited references fail to disclose, teach, or suggest the subject matter of Claims 1-3 and 7-22.

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**Legal Standard – 35 U.S.C. § 103**

On pages 4-9 of the Final Office Action, Claims 1-3 and 7-22 were rejected under 35 U.S.C. §103(a). 35 U.S.C. § 103(a) states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Obviousness under 35 U.S.C. §103(a) is a legal conclusion involving four factual inquiries:

- (1) the scope and content of the prior art;
- (2) the differences between the claims and the prior art;
- (3) the level of ordinary skill in the pertinent art; and
- (4) secondary considerations, if any, of nonobviousness.

See Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966). See also KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007) ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955,1956 (Fed. Cir. 1993). A *prima facie* case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Further, the Examiner must provide references that comply with the all claim limitations standard. A broad conclusory statement regarding the obviousness of

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modifying a reference, standing alone, is not "evidence." Thus, when an Examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002). See also In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Recently, in KSR Int'l v. Teleflex, the Supreme Court rejected a rigid approach to the question of obviousness. 550 U.S. \_\_\_, 127 S.Ct. 1727, 1738 (2007). At the same time, however, the Supreme Court recognized that, "inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *Id.* at 1741. Thus, a patent composed of several elements "is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *Id.* Therefore, there must be an articulated reasoning with a rational underpinning to support a legal conclusion of obviousness. *Id.* ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.") (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

### Independent Claim 1

As stated in the 35 U.S.C. § 103 legal standard section, the Examiner must comply with the all claim limitations standard to establish a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103.

Independent Claim 1, as amended, includes the limitations of "a route management module configured to combine the congestion metric information generated by the plurality of transceiver nodes into a congestion report" and "the route management module configured to combine routing information for each transceiver node and the congestion report into a plurality of node routing and congestion reports, the route management module is configured to transmit one of the plurality of node routing and congestion reports to each transceiver node based on the routing information."

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In regards to the combining routing information and congestion information limitations of independent Claim 1, the Examiner relies upon Billhartz and cites various sections (e.g., paras. [0054], [0057], [0063-0064], [0069-0070], and [0072-0074]) of Billhartz in support of this reliance. The Applicants have reviewed Billhartz including the sections cited by the Examiner along with the Examiner's arguments and respectfully disagree with the Examiner's position.

To clarify the combining routing information and congestion information limitations of Claim 1, the Applicants have amended Claim 1 to include the limitations of "a route management module configured to combine the congestion metric information generated by the plurality of transceiver nodes into a congestion report" and "the route management module configured to combine routing information for each transceiver node and the congestion report into a plurality of node routing and congestion reports, the route management module is configured to transmit one of the plurality of node routing and congestion reports to each transceiver node based on the routing information."

Independent Claim 1 is materially different than the Billhartz reference. As an example, the Examiner cites paragraph [0074] of Billhartz for the position that Billhartz discloses the combining routing information and congestion information limitations of Claim 1. The Examiner stated:

Cain fails to teach that the data cell includes routing information and congestion metric information. However, Billhartz clearly teaches that 'the traffic monitoring unit 70 may broadcast a traffic activity query, and processes replies to the traffic activity query. Alternatively, the traffic monitoring unit 70 may passively monitor the traffic between nodes 30 in the network 24. The route discovery unit 50 discovers routing to a destination node based upon the stored traffic information, and the route selection unit 58 selects traffic routes to the destination node based upon the stored traffic information. Also, the route discovery unit 50 may process the traffic information stored in the traffic database to select one of a reactive, proactive and hybrid route discovery process, and discovers traffic routes with the selected route discovery process. Each traffic route comprises a combination of wireless communication links 32 (see Par. [0074]). (Office Action dated April 17, 2008, page 3).

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However, this section of Billhartz (and Billhartz in general) does not disclose “a route management module configured to combine the congestion metric information generated by the plurality of transceiver nodes into a congestion report” and “the route management module configured to combine routing information for each transceiver node and the congestion report into a plurality of node routing and congestion reports, the route management module is configured to transmit one of the plurality of node routing and congestion reports to each transceiver node based on the routing information.” As stated in paragraphs [0073] and [0074] of Billhartz cited by the Examiner, the Billhartz reference includes a traffic information generator 76, a traffic monitoring unit 70, and a route selection unit 58. The traffic monitoring unit 70 monitors traffic communicated between nodes 30. The traffic information generator 76 generates traffic information based upon how much traffic is being communicated. The route selection unit 58 selects traffic routes to the destination node based upon the stored traffic information. However, the route selection unit 58 does not combine the traffic information and the routing information to transmit a combined traffic information and routing information signal. Therefore, Billhartz does not disclose, teach, or suggest combining routing information for each transceiver node and the congestion report into a plurality of node routing and congestion reports, the route management module is configured to transmit one of the plurality of node routing and congestion reports to each transceiver node based on the routing information as recited in independent Claim 1.

Natarajan does not cure the deficiencies of Billhartz and Cain noted above with respect to independent Claim 1.

If the Examiner maintains the rejections of the claims under 35 U.S.C. § 103, the Applicants respectfully request clarification on how the cited sections of the references disclose, teach, or suggest the above-mentioned claim limitations and that the Examiner provide a more detailed reasoning to support the legal conclusion of obviousness. See KSR Int'l v. Teleflex, 550 U.S. \_\_\_, 127 S.Ct. 1727, 1738 (2007) (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)(citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

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The Applicants respectfully submit that these references, alone or in combination, do not render obvious that which is recited in amended independent Claim 1. Claims 2-3 and 7 depend from independent Claim 1 and are allowable for at least the same reasons as independent Claim 1. See 35 U.S.C. § 112 ¶ 4.

Accordingly, the Applicants request withdrawal of the rejections of Claims 1-3 and 7 under 35 U.S.C. § 103(a).

**Independent Claims 8 and 16**

As stated in the 35 U.S.C. § 103 legal standard section, the Examiner must comply with the all claim limitations standard to establish a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103.

Claims 8 and 16 are in independent form and recite “combining the congestion metric information with routing information” and “transmitting the congestion metric information and routing information.” In Claims 8 and 16, the data cells transmit routing information and the congestion metric information at the same time, which is apparent by the language “combining the congestion metric information with routing information.” The congestion metric information can advantageously use the resources dedicated to the routing updates to deliver the congestion metric information.

In regards to the combining routing information and congestion information limitations of independent Claims 8 and 16, the Examiner relies upon Billhartz and cites various sections (e.g., paras. [0054], [0057], [0063-0064], [0069-0070], and [0072-0074]) of Billhartz in support of this reliance. The Applicants have reviewed Billhartz including the sections cited by the Examiner along with the Examiner’s arguments and respectfully disagree with the Examiner’s position.

Independent Claims 8 and 16 are materially different than the Billhartz reference. As an example, the Examiner cites paragraph [0074] of Billhartz for the position that Billhartz



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discloses the combining routing information and congestion information limitations of Claims 8 and 16. The Examiner stated:

Cain fails to teach that the data cell includes routing information and congestion metric information. However, Billhartz clearly teaches that 'the traffic monitoring unit 70 may broadcast a traffic activity query, and processes replies to the traffic activity query. Alternatively, the traffic monitoring unit 70 may passively monitor the traffic between nodes 30 in the network 24. The route discovery unit 50 discovers routing to a destination node based upon the stored traffic information, and the route selection unit 58 selects traffic routes to the destination node based upon the stored traffic information. Also, the route discovery unit 50 may process the traffic information stored in the traffic database to select one of a reactive, proactive and hybrid route discovery process, and discovers traffic routes with the selected route discovery process. Each traffic route comprises a combination of wireless communication links 32 (see Par. [0074]). (Office Action dated April 17, 2008, page 3).

However, this section of Billhartz (and Billhartz in general) does not disclose "combining the congestion metric information with the routing information" and "transmitting the congestion metric information and routing information." As stated in paragraphs [0073] and [0074] of Billhartz cited by the Examiner, the Billhartz reference includes a traffic information generator 76, a traffic monitoring unit 70, and a route selection unit 58. The traffic monitoring unit 70 monitors traffic communicated between nodes 30. The traffic information generator 76 generates traffic information based upon how much traffic is being communicated. The route selection unit 58 selects traffic routes to the destination node based upon the stored traffic information. However, the route selection unit 58 does not combine the traffic information and the routing information to transmit a combined traffic information and routing information signal. Therefore, Billhartz does not disclose, teach, or suggest combining the congestion metric information with the routing information and transmitting the congestion metric information and routing information as recited in independent Claims 8 and 16.

Natarajan does not cure the deficiencies of Billhartz and Cain noted above with respect to independent Claims 8 and 16.

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If the Examiner maintains the rejections of the claims under 35 U.S.C. § 103, the Applicants respectfully request clarification on how the cited sections of the references disclose, teach, or suggest the above-mentioned claim limitations and that the Examiner provide a more detailed reasoning to support the legal conclusion of obviousness. *See KSR Int'l v. Teleflex*, 550 U.S. \_\_\_, 127 S.Ct. 1727, 1738 (2007) (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)(citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The Applicants respectfully submit that these references, alone or in combination, do not render obvious that which is recited in independent Claims 8 and 16. Claims 9-15 and 17-22 depend variously from independent Claims 8 and 16 and are allowable for at least the same reasons as independent Claims 8 and 16. See 35 U.S.C. § 112 ¶ 4.

Accordingly, the Applicants request withdrawal of the rejections of Claims 8-22 under 35 U.S.C. § 103(a).

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Applicants believe that the present Application is now in condition for allowance. Favorable reconsideration of the Application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

Applicants respectfully put the Patent Office and all others on notice that all arguments, representations, and/or amendments contained herein are only applicable to the present patent Application and should not be considered when evaluating any other patent or patent application including any patents or patent applications which claim priority to this patent Application and/or any patents or patent applications to which priority is claimed by this patent Application.



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The Commissioner is hereby authorized to charge any additional fees which may be required regarding this Application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 18-1722. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 18-1722.

Respectfully submitted,

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